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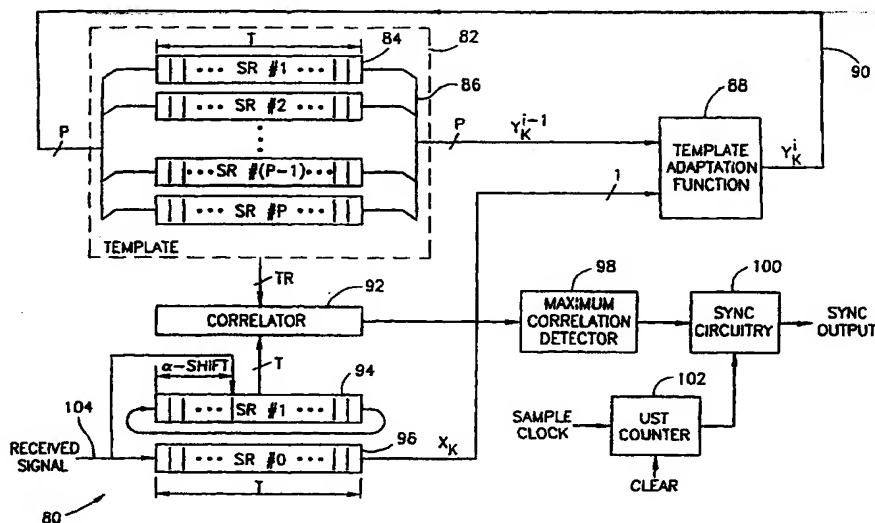
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(54) Title: APPARATUS FOR AND METHOD OF ADAPTIVE SYNCHRONIZATION IN A SPREAD SPECTRUM COMMUNICATIONS RECEIVER



(57) Abstract: The present invention utilizes CSK modulation for the synchronization acquisition stage. The transmitter transmits data in the form of packets to the receiver, wherein each packet is preceded by a preamble comprising a number of symbols. The length of the preamble can be any suitable number of symbols such that the receiver is able to synchronize with the transmitter. The preamble comprises a sequence of rotated or non-rotated symbols, inverted or non-inverted (or generally phase-rotated by some amount). In some embodiments, the preamble comprises a sequence of non-rotated symbols (or symbols with a constant fixed rotation) followed by one or more symbols with a known random shift, the rotation applied to each rotated symbol being independent of the rotation applied to other symbols.